

Attorney Docket No.: 028987.52609US
PATENT

CLAIMS:

1. A method of regulating vehicle handling of one of an all-wheel drive vehicle having at least one of a controllable longitudinal clutch and a controllable main-axle lateral lock and a single axle drive vehicle having a controllable lateral lock, comprising the steps of:

detecting and processing vehicle sensed input quantities;

comparing a desired driving direction defined by a steering angle with an actual moving direction of the vehicle; and

if values of said desired direction and said actual moving direction deviate from one another by a definable reference value, increasing coupling between a front axle and a rear axle of the vehicle in order to increase at least one of the yaw damping and when a controllable main-axle lateral lock is present, the locking torque of the lateral.

2. The method according to claim 1, wherein the definable reference value is determined in a vehicle-specific or engine-specific manner.

3. The method according to claim 1, wherein a value for the locking torque is stored in characteristic diagrams.

Attorney Docket No.: 028987.52609US
PATENT

4. The method according to claim 1, wherein clutch torque between a front axle and a rear axle is a function of the driving speed, the driving direction desired by the driver and a change in the actual moving direction of the vehicle.

5. The method according to claim 1, wherein the locking torque and the yaw damping are increased simultaneously.

6. A method of regulating handling of a vehicle, comprising the steps of:
detecting and processing a plurality of vehicle driving parameters, including a driver desired driving direction value;

comparing said desired direction value with a value of an actual moving direction value obtained from said processed plurality of vehicle driving parameter and outputting a comparison value

at least one of increasing coupling between a front and a rear axle of the vehicle and increasing locking torque of a main axle lateral lock of the vehicle in order to increase yaw damping, when said comparison value exceeds a defineable reference value.

7. The method according to claim 6, wherein the defineable value is determined in a vehicle-specific or engine-specific manner.

Attorney Docket No.: 028987.52609US
PATENT

8. The method according to claim 6, wherein
a value for the locking torque is stored in characteristic diagrams.
9. The method according to claim 6, wherein
clutch torque between a front axle and a rear axle is a function of the driving
speed, the driving direction desired by the driver and a change in the actual
measuring direction of the vehicle.
10. The method according to claim 6, wherein
the locking torque and the yaw damping are increased simultaneously